AMERICAN MADE
U.S. DEPARTMENT OF ENERGY

Community Energy Innovation Prize

RESCo Innovation Team

Resources for Public Dissemination

The RESCo Innovation Team would like to submit two resources for public dissemination.

The first resource is a presentation that targets homeowners to educate them on the clean energy transition and what that means for them. This presentation was received well during a homeownership Expo where we presented this information.

The second resource is a process that we developed to assist small businesses to pursue USDA grants and combine qualifying projects with the investment tax credit (ITC). The model leverages our Clean Energy Bank and ownership of the clean energy system with a non-profit to expedite the ITC through direct pay provisions in the IRA. This reduces the debt quickly, which should reduce the business payments for the system. Once the system has been paid off and has been held by the nonprofit for the period required by the IRS, ownership of the clean energy system reverts to the business.

We feel these two concepts may add benefit to others trying to maximize the adoption of clean energy systems in their communities.

HOME OWNERSHIP EXPO

Tokatakiya Awacin

"Planning for the future"

Homeownership and Energy

April 18, 2024

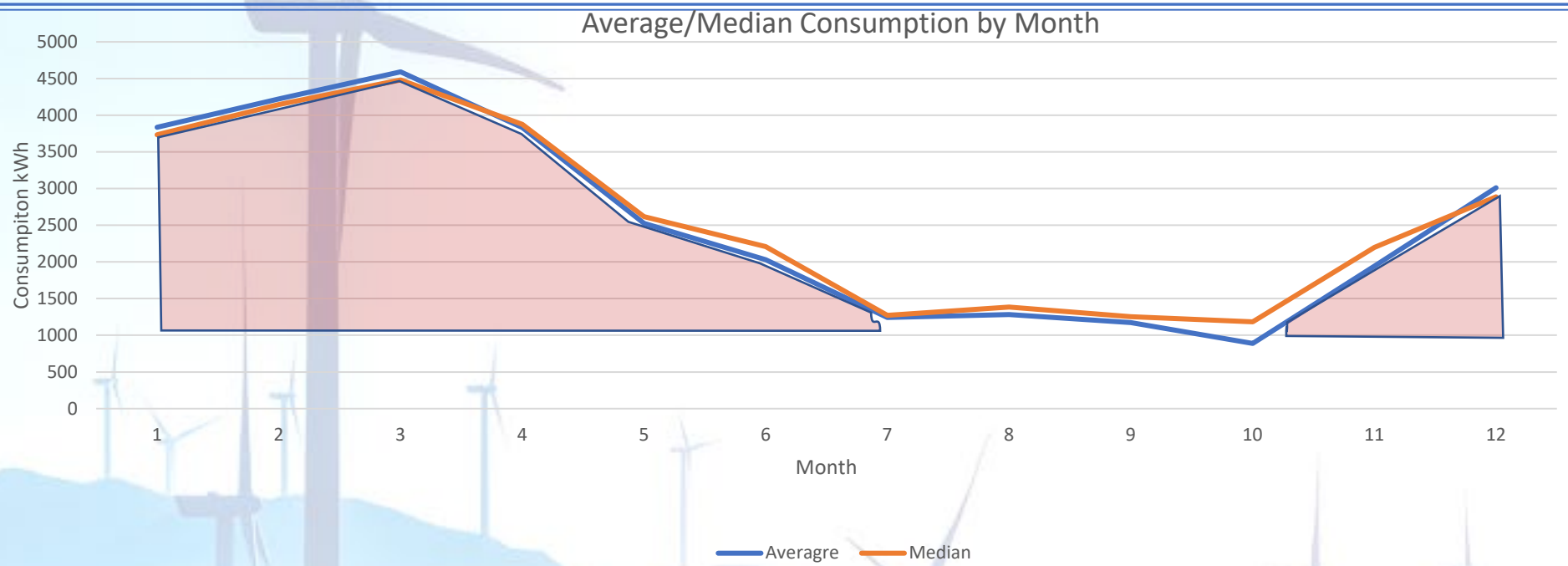
Discussion Areas

- Energy Impacts
- What does home energy use look like on Rosebud
- Where does the money for energy use go?
- What are ways to reduce the cost of energy and keep money spent on energy in the local economy
- Electrification and Efficiency
- How do you get the money to make the energy improvements

The Impacts of Energy Use

- All energy use impacts the environment in one way or another.
  - Ancestors used wood and buffalo chips – both have significant impacts – but there was balance
  - The transition to coal and other fossil fuels accelerated energy use and multiplied the impacts of energy use leading to climate change
  - Continuing that path will increase unnecessary impacts to Unci Maka
- Charting a New Path for Home Energy using Lakota Values
  - Focus on values –
    - Use only what is needed – Cherish the gift of energy and do not waste or abuse it (have a focus on efficiency)
    - Maximize the value of energy – Use all of what is taken
    - Choose wisely what types of energy are used
    - Minimize the impact of energy use
    - Achieve balance in what and how energy is used

Sicangu Village home energy profile



- **Older homes typically use much more energy**
- **A large portion of energy use is for heating**
- **All homes can use much less energy and reduce their impact on Unci Maka**

Where does all the money paid by homes for energy go?

- Most of the money for electricity and propane leave the local economy.
  - Over half of the expenses of electric utilities are used to pay for the electricity. None of the purchased power is generated on the Reservation
  - Despite large amounts of wind and hydro power generated in South Dakota, local utilities are still buying almost 40% of their electricity from coal power plants.[1]

- Energy provider employee salaries and other minor expenses remain in the local economy, often less than 10% of their reported expenses.

- Better energy choices and practices can keep a much larger portion of energy costs in the local economy and create opportunities – more efficient homes using renewable energy resources are one of those choices

1 - 2022 Generation Mix for South Dakota Utilities

Reducing home energy costs

- Efficiency
  - Insulation
  - Windows/doors
  - High efficiency appliances and HVAC systems
  - Programmable thermostats
  - LED lighting
- Renewable/Clean Energy systems
  - Solar PV
  - Small wind
  - Ground source (geothermal) heat pumps
  - Wood heat
- Local Contractors

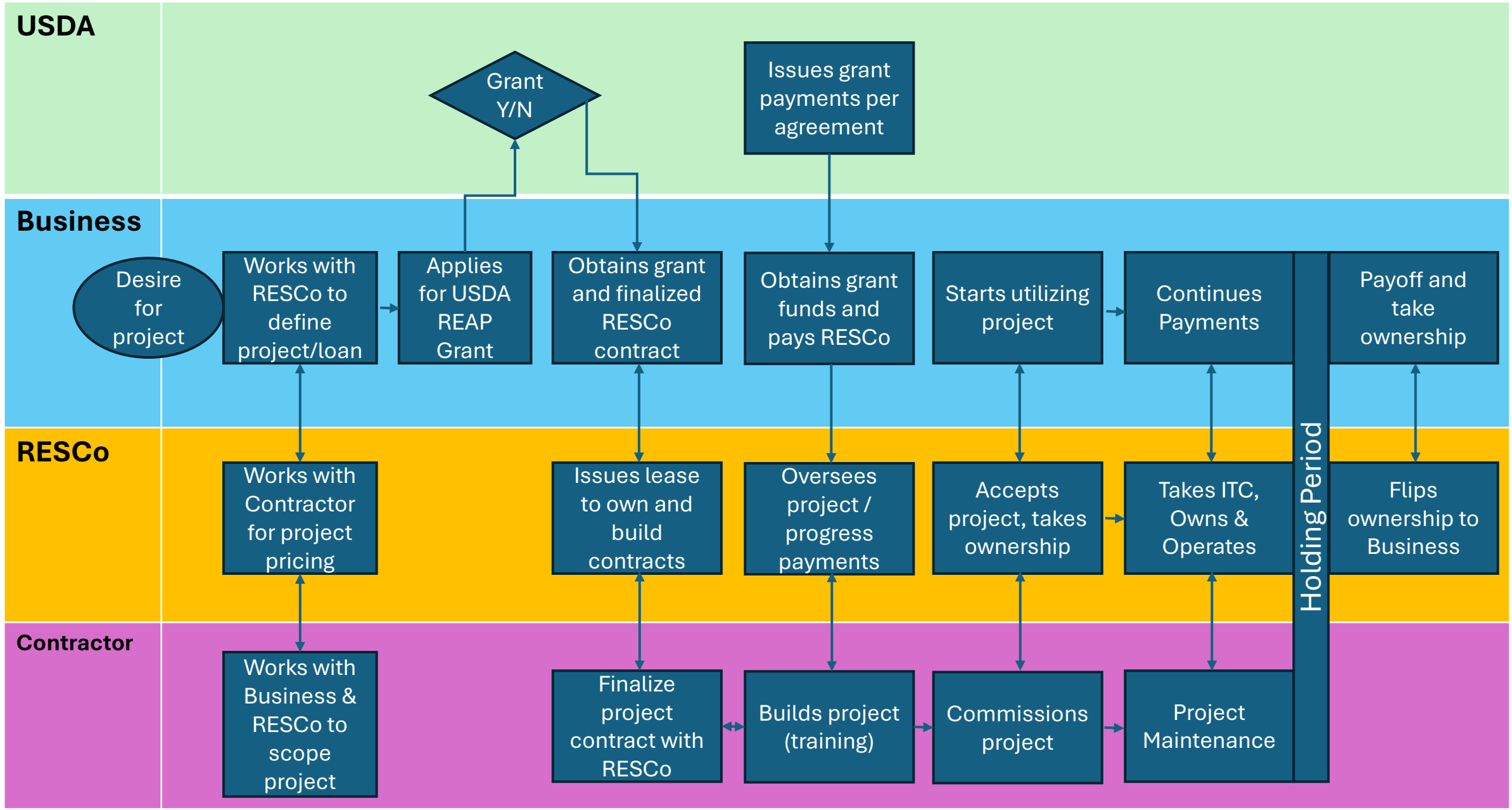
Electrification and Efficiency

- There are a lot of incentives (rebates and tax credits) for Electrification – What is that?
  - Conversion to heat pump HVAC
  - Heat pump water heaters
  - Heat pump clothes dryer
  - Induction stoves
  - Electrical upgrades to support these upgrades
- All of these systems are higher energy efficient systems
- Other efficiency measures (e.g., insulation) can reduce the size and costs of some of these systems.
- Combining these with renewable systems moves towards cleaner and more resilient energy.

Where's the $ come from?

- Rebates
  - Tribal
  - State
- Tax credits
  - 30% for many upgrades
  - Additional credits if project is focused on qualifying criteria
- Borrowing
  - Tatanka Funds Inc. is developing a program – Clean Energy Bank
  - Other models to monetize tax credits quickly are also in the works.
- Federal programs
  - USDA grants and loans for elders

Thank You!


USDA
Business
RESCo
Contractor
Grant Y/N
Issues grant payments per agreement
Desire for project
Works with RESCo to define project/loan
Applies for USDA REAP Grant
Obtains grant and finalized RESCo contract
Obtains grant funds and pays RESCo
Starts utilizing project
Continues Payments
Payoff and take ownership
Works with Contractor for project pricing
Issues lease to own and build contracts
Oversees project / progress payments
Accepts project, takes ownership
Takes ITC, Owns & Operates
Flips ownership to Business
Works with Business & RESCo to scope project
Finalize project contract with RESCo
Builds project (training)
Commissions project
Project Maintenance
Holding Period